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The impact of writing case studies: Benefits for students' success and well-being

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Abstract

University professors often use case studies because they provide a fertile basis for the application of theoretical concepts to real world situations, enhancing student participation. The present correlational study aims to present social psychology's students from the University of Barcelona (UB) as active participants of their learning process through their work with case studies. Results demonstrate that students made significant learning through the writing of case studies, which has benefited their results in the final exam, course grades, and course's satisfaction.

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1. Introduction

Since the early twentieth century, the renowned *Harvard Business School* began to write descriptions of real cases so that students could learn beyond textbooks, and this technique has become a powerful teaching tool (Christensen & Hansen, 1987). Case studies can be defined as stories that represent real, complex and contextualized situations, which often involve dilemmas, conflicts or problems with no obvious solution (Davis,

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1993). According to Boehrer and Linsky (1990, p. 45), a good case should present: "an interesting and provocative situation that fosters empathy with the characters" and focuses on "the intersection between organizational or situational dynamics and perception, judgment and individual action". The use of this technique is especially suitable for building the capacity of diagnosis and decision-making in the field of social problems, where human relations play an important role (Leonard & Cook, 2010).

University faculty members, seniors and juniors (i.e., Escartín, Ferrer, Pallàs, & Ruiz, 2008), have found, in the case studies, an active and collaborative approach that can promote their students' learning process (Kunselman & Johnson, 2004). In this sense, case studies seem to be useful to enhance the acquisition of skills by students, relevant to the academic and professional development in different disciplines such as psychology, nursing, law or business, to name a few (Scott, 2007).

Specifically, it has been argued that this teaching method is effective for the development of skills such as critical thinking (Popil, 2011), communication skills (De Miguel, 2005) or teamwork (Piqué & Forés, 2012), and to promote exchanges and collective construction of knowledge. Also, case studies often help develop the dialectic between theory and practice, providing fertile ground for the application of conceptual content to real world situations, overcoming the gap between academia and the world of work (Barkley, Cross, & Mayor, 2005; Mayo, 2004).

Using case studies in the teaching process represents an exciting approach to teaching, which can help students take more responsibility for their own learning, both inside and outside the classroom. On the one hand, it has been shown that using case studies in the classroom is beneficial for teachers, because they encourage reflection about the teaching role, renewing their interest in the course material, and increasing their level of enthusiasm, which can be transmitted to the students (Kunselman & Johnson, 2004). Furthermore, case studies can promote intrinsic motivation of students for their own learning process, assuming learning experiences and authentic assessment in which they have to experience the consequences of solutions to real situations (De Miguel, 2005).

Case studies can take different forms, ranging from simple situations to complex scenarios, and can be presented as multiple or single cases, as well as simulations based on real problems or based on people's own experiences (De Miguel, 2005). The preparation for being able to use this methodology has typically fallen under the responsibility of teachers, being a difficult task due to the amount of resources needed to develop them (Forrester & Oldham, 1981; Jones & Russell, 2008; Popil, 2011). But, what if university students could take over the responsibility of creating their own case studies as a tool for formative and summative assessment?

The ability to deal with this type of learning activities depends not only on the knowledge of the theories and practices regarding the field of study, but also on the ability to contextualize the concepts learned in a creative and innovative way. In other words, unlike the case study prepared by professors, we believe that the case studies developed by students can actively facilitate collective building of knowledge throughout the students' learning process (Escartín et al., 2008; Piqué & Forés, 2012).

The purpose of the present study is to allow students of the subject Social Psychology at the Faculty of Psychology (University of Barcelona, UB), experiencing a significant and meaningful learning, as active participants of their own learning process. Within a nutshell, students were asked to create a case study where they had to contextualize the theoretical contents included in the course outline (i.e., social perception and cognition, socialization, social identity, attitudes, social influence...), and their success and well-being in the course were examined.

2. Study description

For the implementation of this innovative teaching method, we selected the compulsory subject Social Psychology, offered at the 2th semester as part of the Degree of Psychology at UB. A total of 82 students from continuous assessment (10 male students and 72 female students) voluntarily participated in the study. The activity was carried out in pairs to promote interdependence, collaboration and creativity. The average length of the case studies was about six pages. The task consisted of four phases:

- *Phase 1.* Before starting the activity, students were asked to work on a case study prepared and facilitated by teachers. The basic intention at this stage was to (1) disclose the nature and characteristics of a case study, which

was used as a model, and (2) try to reduce as far as possible, the uncertainty and anxiety of students, arising from an unusual task in which they had to take an active role.

- *Phase 2.* After explaining the different theoretical contents, students were asked to develop a case study using this knowledge but without specifically naming it. The content had to be reflected in a story, real or fictitious, so that when analysing the story, it should be possible to detect and extract the theoretical content. Therefore, it could be proved that students had properly used the knowledge learned.
- *Phase 3.* In addition to the case study, students were asked to submit a separate report specifying the conceptual content reflected in the story, and its rationale. This report was a supplementary teaching material to be used later. It was like a "solving the case" file, at which any student working on the case should arrive, once the information of the case is analysed.
- *Phase 4.* The last step was to exchange cases among students or the whole class. Students were asked to work on cases and try to identify the conceptual content represented in the cases. Subsequently, the report described in phase 3 was delivered, so that students could compare their findings with the original analysis proposed by the authors of the case study.

The aim of developing case studies was twofold. First, they were used as a pedagogical tool for formative assessment, becoming part of the learning material and preparation for students in order to face the summative assessment (Álvarez, 2008; Carless, Joughin, & Mok, 2006; McTighe & O'Connor, 2005). This allowed students to enhance their sense of ownership of the objectives and evaluation criteria, planning of actions to perform, and also get involved in the assessment of their peers (cooperative, not competitive, involving feedback, dialogue and participation) (Butler & Winne 1995; Dochy, Segers, & Sluijsmans, 1999; Ibarra, Rodríguez, & Gómez, 2012). Second, as a result of this, the analysis of the cases itself became an important task of supporting the end-of-course assessment. Throughout the reports delivered, it was possible to assess the level of achievement of the learning course's objectives attained by students, related to the understanding and analysis of human behaviour (Saldaña et al., 2014).

3. Results and conclusions

To test the relationship between activity and performance, three different evaluation activities throughout the semester were compared: the activity of the case study presented here and two other activities (research methods and social influence). Each activity was assessed using a score ranging from 0 to 2 (see means and standard deviations in Table 1). Using the Student *t* test, the results showed that the scores in the practice "creating a case study" were statistically higher than the second practice "Research Methods" ($t = 7.82$; $p < .001$), as well as the third practice "Social influence: The power of the situation" ($t = 9.20$; $p < .001$). The results showed that the differences between the scores of practices 2 and 3 were non-significant ($t = .96$; $p = .34$).

Furthermore, the practice of the case study correlated positively with the theoretical examination and the grade obtained at the end of the course (see Table 1). However, none of the other two practices (2 and 3) correlated significantly with the theoretical exam (although practice 2 also correlated with final course grades). These results allow us to infer that performance is likely to improve as the student becomes an active participant of his/her own learning. Likewise, creating case studies can be viewed as a useful learning and teaching method for preparing the summative evaluation.

Table 1. Mean, standard deviation and correlations between the study variables

	Mean	SD	1	2	3	4
1. Case Study	1.48	.17				
2. Practice 2	1.18	.30	.31*			
3. Practice 3	1.14	.29	.29*	.30*		
4. Theoretical Exam	6.5	1.08	.25*	.21	.02	
5. Grades end of course	7.49	1.23	.35**	.34**	.14	.91**

Note. ** $p < .001$; * $p < .01$

- From a qualitative point of view, social psychology students showed high creativity in the development of the case studies. In other words they created situations and stories of great originality and emotional involvement, linking about 15 theoretical concepts in each case study. The stories dealt with issues as diverse as social relations within a band of musicians or the relationships among a group of single friends looking for couple. Also the reports that accompanied the cases had a high theoretical linkage. Here we show some examples (in italics) extracted anonymously: Example 1. Ambivalent attitude: *tendency to have positive and negative evaluations of the same attitude. This concept is reflected in paragraph 11. We use it to express the two evaluations that the main character has regarding men. She knows that, on the one hand, the guy she met caused her a good impression, but then, on the other hand, she fears that he is like others men (i.e., with negative aspects).*
- Example 2. Upward comparison: *compare yourself to someone who is better regarding a specific attribute. In paragraph 5, we use this concept to express the tendency of the main character to compare herself with other women apparently superior.*

Students' satisfaction with the course was measured in two ways: Feedback expressed by the students within the group (informal method) and a survey lead by the faculty staff at the end of the course (formal method). Overall, students valued this exercise as highly productive and fascinating, as it forced them to better understand the contents of the course, making them feel more skilled to explain and apply what they have learned in an applied context. Sharing case studies with other students also enhanced feedback and mutual aid, facilitating peer learning and collective knowledge building. Finally, writing cases also proved to be a facilitator of learning for the final evaluation, where the scores were positively correlated.

In this regard, some evidence collected from the students' achieved learning is exemplified with the following statements written by students:

- Student 1: *To conclude, I would like to point out that this practice has helped me to assimilate the theoretical concepts and has made me think about the attributes of the people around me.*
- Student 2: *I am sorry that I have included several concepts within one single example, but social situations do not incorporate concepts separately.*

Finally, the opinion polls filled by students showed that the type of activities (practices) contributed to a good learning of the course contents (mean of grades from teachers significantly above department and faculty). And in general, students appeared satisfied with the quality of the work they did (again, measured by mean of grades from teachers that were significantly above department and faculty). Although this methodology requires a specific preparation for teachers, the educative advantages with respect to the significant learning are of great interest to students (ITESM, 2014).

In order to be able to continue future research, conducting a longitudinal design should be considered, in order to check in the same population, the level of recall of the concepts used in the preparation of the case study, one or two years later. The discipline of psychology has shown that we remember more of what is done and discussed, in comparison to what is just looked and felt, following the thinking of Confucius centuries ago that is expressed in the following phrase: "Tell me and I forget; teach me and I may remember; involve me and I will learn". Moreover, there is the possibility of identifying the theoretical concepts that have the greatest impact on students, or are more used, with the aim to use them more consciously to motivate students and facilitate their learning process. Finally, it may be helpful to analyse which methods and tools have been employed by teachers to introduce the theoretical concepts (Escartín, Ceja, Celdrán, & Martín-Peña, 2014). This analysis may provide us with further information regarding the most effective methods used by professors, allowing us to extrapolate this information to other concepts less used by students.

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